



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,576	01/04/2005	Yuzo Mori	2004_0912A	4775
513 7590 08/20/2008 WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021				
EXAMINER MENDEZ, ZULMARIAM				
ART UNIT		PAPER NUMBER		
1795				
MAIL DATE		DELIVERY MODE		
08/20/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/500,576

Applicant(s)

MORI ET AL.

Examiner

ZULMARIAM MENDEZ

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07/01/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date See Continuation Sheet
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :07/01/2004; 01/04/2005; 05/05/2008.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1 and 5 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 14 and 19 of copending Application No. 10/498,042. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1 and 5 of the instant application recite an electrolytic apparatus and a method comprising a holder for holding a substrate, a processing electrode that can come close to or into contact with the workpiece, a feeding electrode which feeds electricity to the workpiece, an ion exchanger between the electrodes, a fluid supply section, a power source for applying a voltage between the electrodes, a drive section for allowing the workpiece and the

processing electrode to make a relative movement, and a numerical controller for effecting a numerical control of the drive section. Claims 14 and 19 of the copending Application no. 10/498,042 also recite an electrolytic apparatus and method comprising: a holder for holding a substrate, a processing electrode that can come close to or into contact with the workpiece, a feeding electrode which feeds electricity to the workpiece, an ion exchanger between the electrodes, a fluid supply section, a power source for applying a voltage between the electrodes, a drive section for allowing the workpiece and the processing electrode to make a relative movement, and a numerical controller for effecting a numerical control of the drive section.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nogami et al. (US Patent no. 6,693,036) in view of Bruns et al. (US Patent no. 5,149,405).

With regard to claims 1-4, Nogami discloses a polishing apparatus and method comprising: a holder (42) for detachably holding a work piece (W, see figure 1; col. 3, line 24; col. 7, lines 33-34); a processing electrode (23; see figure 6) that can come close to or into contact with the work piece (W) held by the holder (42); a feeding electrode (15, 20) for feeding electricity to the workpiece held by the holder (42); an ion exchanger/scrub member (24; the scrub member is formed by a material capable of absorbing the electrolyte made of a solvent and a solute dissociated into ions; col. 9, lines 25-28; col. 11, lines 60-61) disposed in at least one of the space between the work piece (W) and the processing electrode (23, as shown in figure 6) and the space between the workpiece (W) and the feeding electrode (15, 20); a fluid supply section (20a; col. 3, lines 31-33) for supplying a fluid between the workpiece (W) and at least one of the processing electrode (23) and the feeding electrode (15, 20), in which the ion exchanger (24) is present; a power source (61; col. 10, lines 66-67; col. 3, lines 57-61) for applying a current or a voltage at a constant value between the processing electrode (23) and the feeding electrode (15, 20); a drive section for allowing the workpiece (W) held by the holder (42) and the processing electrode (23), facing each other, to make a relative movement (col. 3, lines 61-63); and a controller (55) having the function of controlling the entire polishing apparatus, speed of the wafer as well as the stop step and current between electrodes (col. 6, lines 52-53; col. 7, lines 58-61).

However, Nogami fails to explicitly disclose wherein the controller is a numerical controller.

Bruns discloses a method and apparatus for electrochemically machining a work piece (col. 2, lines 28-30) wherein a numerical controller is used in order to control relative movement as well as a power source to improve the electrochemical machining process and to effect a better control between the electrodes (col. 8, lines 22-40). Therefore, one having ordinary skill in the art at the time of the invention would have found it obvious to modify the controller, as taught by Bruns, by using a numerical controller in the electro-polishing apparatus of Nogami, in order to control relative movement as well as a power source to improve the electrochemical machining process and to effect a better control between the electrodes.

With regard to claims 5-8, Nogami discloses a polishing apparatus and method comprising: providing a processing electrode (23; see figure 6), a feeding electrode (15, 20) and an ion exchanger/scrub member (24; the scrub member is formed by a material capable of absorbing the electrolyte made of a solvent and a solute dissociated into ions; col. 9, lines 25-28; col. 11, lines 60-61) disposed in at least one of the space between a workpiece (W) held by a holder (42) and the processing electrode (23) and the space between the work piece (W) and the feeding electrode (15, 20; see figure 1; col. 3, line 24; col. 7, lines 33-34); allowing the processing electrode (23) to be close to or in contact with the workpiece (W) held by the holder (42) while feeding electricity from the feeding electrode (15, 20) to the work piece (W; col. 10, lines 66-67; col. 3, lines 57-61); supplying a fluid to the space between the workpiece and at least one of the

processing electrode and the feeding electrode, in which the ion exchanger is present (20a; col. 3, lines 31-33); applying a constant voltage between the processing electrode (23) and the feeding electrode (15, 20); and allowing the work piece (W) held by the holder (42) and the processing electrode (23), facing each other, to make a relative movement (col. 3, lines 61-63); while controlling the movement by a controller (55) having the function of controlling the entire polishing apparatus, speed of the wafer as well as the stop step and current between electrodes (col. 6, lines 52-53; col. 7, lines 58-61). However, Nogami fails to explicitly disclose wherein the controller is a numerical controller.

Bruns discloses a method and apparatus for electrochemically machining a work piece (col. 2, lines 28-30) wherein a numerical controller is used in order to control relative movement as well as a power source using coordinate data, and measuring, inputting and comparing the form of the workpiece using the numerical control (col. 8, lines 22-40) to improve the electrochemical machining process and to effect a better control between the electrodes. Therefore, one having ordinary skill in the art at the time of the invention would have found it obvious to modify the controller, as taught by Bruns, by using a numerical controller in the electro-polishing apparatus of Nogami, in order to control relative movement as well as a power source to improve the electrochemical machining process and to effect a better control between the electrodes.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ZULMARIAM MENDEZ whose telephone number is (571)272-9805. The examiner can normally be reached on Monday-Thursday, 8:30am-5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexa Neckel can be reached on 571-272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Z. M./
Examiner, Art Unit 1795

/Cynthia H Kelly/
Supervisory Patent Examiner, Art Unit 1795

Application/Control Number: 10/500,576
Art Unit: 1795

Page 8